CLAIMS

What is claimed is:

1. An apparatus for impressing a three-dimensional pattern into a wet concrete wall formed by a slip form, comprising:

a. an impression roller having an axis of rotation and a resilient outer periphery impressed with a three-dimensional pattern;

b. means for supporting said roller for rotation about said axis with said outer periphery being partially depressed into an exposed surface of the wet concrete emerging from the slip form, said axis of said roller being maintained substantially parallel to the exposed surface; and,

c. means for advancing said roller along the concrete wall, whereby surface engagement between said outer periphery of said impression roller and the exposed surface of the wet concrete cause said roller to rotate and impress successive portions of the wet concrete with successive portions of said three-dimensional pattern.

2. An apparatus as in claim 1 in which said roller is elongated and right-circular cylindrical in configuration.

3. An apparatus as in claim 1 in which said roller is elongated has a two-stage outer periphery, a first stage being right-circular cylindrical in configuration and a second stage being frusto-conical in configuration.

4. An apparatus as in claim 1 in which said resilient outer periphery is made from a curable silicon, and in which said impression roller includes a rigid inner form having an outer surface, and in

which said outer periphery substantially covers said outer surface.

5. An apparatus as in claim 1 in which said means for supporting said roller comprises upper and lower arms rotatably attached to a respective upper and a respective lower end of said impression roller, said arms extending from said means for advancing said roller.

6. An apparatus as in claim 1 further including means for applying a release agent on the wet concrete, before it comes into contact with said outer periphery.

7. An apparatus as in claim 6 in which said means for applying a release agent comprises a spray bar extending along said outer coating.

8. An apparatus as in claim 1 further including means for applying a thin plastic film on the wet concrete before it comes into contact with said outer periphery.

9. An apparatus as in claim 1 in which said three-dimensional pattern is a plurality of random stone shapes separated from each other by respective mortar lines.

10. An apparatus as in claim 1 in which said three dimensional pattern is a plurality of rectangular brick-sized shapes separated from each other by respective mortar lines.

11. An apparatus as in claim 1 in which said three-dimensional pattern is comprised of a plurality of straight lines.

12. An apparatus for impressing a three-dimensional pattern into wet concrete formed by a slip

form, comprising:

a. an impression roller, said roller having an axis of rotation and an outer periphery, at least a portion of said outer periphery including an outer layer of resilient material having an outwardly facing pattern side, impressed with a three-dimensional pattern;

b. means for supporting said roller for rotation about said axis with said outer layer being partially depressed into an exposed surface of the wet concrete just emerging from the slip form, said axis of said roller being substantially parallel to the exposed surface; and,

c. means for advancing said roller along the concrete wall, whereby surface engagement between said outer periphery of said impression roller and the exposed surface of the wet concrete cause said roller to rotate and continuously impress successive portions of the exposed surface with said three-dimensional pattern.

13. An apparatus as in claim 12 in which said roller is elongated and right-circular cylindrical in configuration.

14. An apparatus as in claim 12 in which said roller is elongated has a two-stage outer periphery, a first stage being right-circular cylindrical in configuration and a second stage being frusto-conical in configuration.

15. An apparatus as in claim 12 in which said resilient outer layer is made from a curable silicon, and in which said impression roller includes an rigid inner form having an outer surface, and in which said outer layer substantially covers said outer surface.

16. An apparatus as in claim 12 in which said means for supporting said roller comprises upper

and lower arms rotatably attached to a respective upper and a respective lower end of said impression roller, said arms extending from said means for moving said roller.

17. An apparatus as in claim 12 further including means for applying a release agent on the wet concrete, before it comes into contact with said outer periphery.

18. An apparatus as in claim 17 in which said means for applying a release agent comprises a spray bar extending along said outer coating.

19. An apparatus as in claim 12 further including means for applying a thin plastic film on the wet concrete before it comes into contact with said outer periphery.

20. An apparatus as in claim 12 in which said three-dimensional pattern is a plurality of random stone shapes separated from each other by respective mortar lines.

21. An apparatus as in claim 12 in which said three dimensional pattern is a plurality of rectangular brick-sized shapes separated from each other by respective mortar lines.

22. An apparatus as in claim 12 in which said three-dimensional pattern is comprised of a plurality of straight lines.

23. An apparatus for slip-forming a concrete wall and impressing a three-dimensional pattern into an exposed surface of the wall, comprising:

a. slip form assembly, said slip form assembly including a pair of parallel side wall forms being spaced apart a distance corresponding to a transverse dimension of the concrete wall,

said slip form assembly further including a top wall form, said top wall form being perpendicular with respect to said side wall forms and spanning said dimension therebetween;

b. means for continuously introducing concrete into an entry end of said slip form, so that said slip form is substantially full of concrete at all times;

c. means for continuously advancing said slip form in a predetermined direction;

d. an impression roller having an axis of rotation and an resilient outer periphery impressed with a three-dimensional pattern;

e. means for supporting said roller for rotation about said axis with said outer periphery being partially depressed into an exposed surface of the wet concrete emerging from said slip form assembly at a discharge end, said axis of said roller being substantially parallel to the exposed surface; and,

f. means for moving said roller at the same speed and in the same direction as the forward advancement of said slip form assembly, whereby surface engagement between said outer periphery of said impression roller and the exposed surface of the wet concrete cause said roller to rotate and impress successive portions of the concrete with said three-dimensional pattern.

24. A method for continuously impressing a pattern into a slip-formed concrete wall, comprising the steps of:

a. continuously slip-forming a concrete wall, the concrete wall having parallel side walls and a top wall, said top wall spanning a transverse distance between said side walls;

b. maintaining a layer of resilient material having a three-dimensional pattern therein in an arcuate configuration, said layer having an axis of rotation;

c. partially depressing said layer into an exposed surface of said concrete wall just

emerging from said slip form, providing surface engagement between said pattern and said exposed surface;

d. continuously rotating said layer about said axis of rotation, at the same rate as the wall continues to emerge from the slip-form; and,

e. maintaining said axis of rotation in substantially parallel relation to said exposed surface, so that a successive portion of said pattern will impress a successive exposed portion of said concrete wall.